



The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
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June 30, 2020

Steven T. James
House Clerk
State House Room 145
Boston, MA 02133

Michael D. Hurley
Senate Clerk
State House Room 335
Boston, MA 02133

Dear Mr. Clerk;

Pursuant to Chapter 41 of the Acts of 2019 line item 4516-1000, please find enclosed a report from the Department of Public Health entitled "MA State Public Health Laboratory Tuberculosis Report."

Sincerely,

A handwritten signature in black ink, appearing to read "mBare".

Monica Bharel, MD, MPH
Commissioner
Department of Public Health

Charles D. Baker
Governor

Karyn Polito
Lieutenant Governor



Marylou Sudders
Secretary

Monica Bharel, MD, MPH
Commissioner

MA State Public Health Laboratory Tuberculosis Report

June 2020



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Legislative Mandate

The following report is hereby issued pursuant to Chapter 41 of the Acts of 2019 line item 4516-1000 as follows:

4516-1000..... For the operation of the bureau of infectious diseases and laboratory sciences, including the division of sexually transmitted disease prevention and the Massachusetts state public health laboratory; provided, that funds shall be expended for an eastern encephalitis testing program and for tuberculosis testing and treatment services; provided further, that the department of public health shall ensure that vendors delivering tuberculosis clinical services and treatment shall seek third-party reimbursement for these services; provided further, *that not less than \$2,070,000 shall be expended for expansion of the capacity of the public health state lab institute to prevent and respond to major health crises, with a special focus on addressing the threat of tuberculosis in the commonwealth; provided further, that a plan to expend these funds effectively shall be developed by the department in consultation with StopTB Massachusetts and other groups with relevant expertise, and shall include, at minimum, funding for tuberculosis related expert technical assistance, tuberculosis medication costs, tuberculosis nurses, community health workers with specialized linguistic and cultural competencies, virology nucleic acid amplification testing expansion supplies, test development supplies, staff to provide high speed, high volume gene sequencing upgrades to the laboratory information management system, and such administrative staff as are necessary to carry out the mission of stopping the spread of tuberculosis; provided further, that the plan developed shall be provided, not later than October 1, 2019, to the house and senate chairs of the joint committee on public health and the chairs of the house and senate committees on ways and means; and provided further, that no funds appropriated in this item shall be expended for administrative, space or energy expenses of the department not directly related to personnel or programs funded in this item.....* \$14,959,985

Executive Summary

The Fiscal Year 2019 (FY19) budget (Chapter 41 of the Acts of 2019) line item *4516-1000 for the operation of the bureau of infectious diseases and laboratory sciences* included additional funds (\$2,070,000) to address the threat of Tuberculosis in Massachusetts, with an emphasis on, state laboratory infrastructure including laboratory maintenance, upgrades and staffing as well as technical assistance with clinical care and support services

The Tuberculosis Program in the Bureau of Infectious Disease and Laboratory Sciences (BIDLS) consulted with the co-chair of Stop TB Massachusetts to determine utilization of new funds in the line item. Funds were targeted to facility staff for laboratories, laboratory personnel, laboratory equipment, energy costs and indirect funding for personnel. All funds have been allocated.

Introduction

Tuberculosis (TB) is an infection or disease caused by a germ that you breathe into your lungs. There are two forms of TB: TB infection and TB disease.

TB infection is the form of TB where a small number of TB germs remain alive in the body, but do no harm. The body's defenses (immune system) keep the germs from causing problems. TB

germs cannot be spread to anyone and the individual does not feel sick. TB infection coupled with a weak or weakening immune system (from another disease or from certain medicines) can develop into TB disease. TB infection is sometimes called “latent” TB. You cannot get TB from a person with TB infection.

TB disease is the form of TB where a large number of TB germs live in the body and the germs are causing harm. The individual usually feels sick, and can spread TB germs to others. TB disease can be found in any part of the body but it usually affects the lungs. The most common symptoms of TB disease are coughing, fever, loss of appetite, weight loss, weakness, night sweats and feeling very tired.

TB germs go into the air when someone who is sick with TB disease in the lungs coughs, sneezes, speaks or sings. People who are living, working or spending a lot of time with someone who has TB disease share the same air and can breathe in the TB germs and become infected with TB.

In 2018, 200 cases (incidence rate 2.9 per 100,000 residents) of TB disease were reported to, and verified by, the Massachusetts Department of Public Health BIDLS. In the same year, over 12,000 reports of latent tuberculosis infection were received by MDPH.

A five-year trend continues to show an overall decline: 2014-2018 compared to 2009-2013 shows the average number of cases declined 13%, from 229 to 198 per year. However, health disparities continue to be prominent, with populations born outside the U.S. at increased risk for TB. State and local prevention efforts continue to focus on these high-risk populations, and contacts of TB cases.¹

The additional funds in line item 4516-1000 support the TB infrastructure for the laboratories on the MA State Public Health Laboratory Jamaica Plain Campus.

Report

The additional funds in 4516-1000.....*For the operation of the bureau of infectious disease and laboratory sciences* were targeted to facility staff for laboratories, laboratory personnel, laboratory equipment, energy costs and indirect funding for personnel.

Specifically:

- ~ \$1M was allocated to facility staff associated with the staff transfer at the Jamaica Plain Campus from DCAMM (Division of Capital Asset Management and Maintenance). These facility staff maintain the Biosafety Level-3 (BSL-3) environment including air handling systems, negative pressure and other facility functions are critical components of responsibilities pertaining to the TB lab.
- ~ \$400K was allocated to personnel at the Jamaica Plain Campus.

¹ <https://www.mass.gov/lists/tuberculosis-data-and-statistics>

- A Lab Technician position who is responsible for general laboratory safety and receiving of specimens for testing at the State Public Health Laboratory, including opening specimens coming to the laboratories, entering orders, and assembling specimen kits for use by clinicians to collect human specimens. The State Public Health Laboratory receives a high volume of specimens for testing and this position is responsible for the accurate log in of all specimens as well as distribution of specimens in a timely way to the respective labs in the building. This position will be working with the TB lab.
- A Research Analyst III who is responsible to onboard and validate new electronic infectious disease reporting data streams from hospitals and health centers as well as Quality Assurance activities for electronic laboratory reporting data from clinical laboratories. This position includes TB reporting.
- ~ \$100K in indirect charges for the personnel above.
- ~ \$320K in laboratory equipment.
- ~ \$250K in increased energy operation costs.

Conclusion

MDPH surveillance data indicates a five year trend showing an overall decline in TB cases (2014-2018 compared to 2009-2013 shows the average number of cases declined 13%, from 229 to 198 per year). However, health disparities continue to be prominent, with populations born outside the U.S. at increased risk for TB. State and local prevention efforts continue to focus on these high-risk populations, and contacts of TB cases. Timely diagnosis of TB disease and treatment with an effective drug regimen are essential to protecting the health of the public. The additional funds support the Department's continued efforts to maintain (and when possible modernize) the infrastructure, equipment and staff that support the TB laboratory program, which is a fundamental component of TB disease response.